In the Supreme Court of the United States

OCTOBER TERM, 1971.

No. 71-611

WESTWOOD CHEMICAL, INC.,
Petitioner,

vs.

OWENS-CORNING FIBERGLAS CORPORATION,
Respondent.

ON PETITION FOR A WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT.

REPLY BRIEF OF PETITIONER.

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PRELIMINARY.

Petitioner appreciates that this Court looks with disfavor upon a reply brief to respondent's brief in opposition to a Petition for a Writ of Certiorari. Petitioner does feel, however, that the misconceptions painted in respondent's brief merit at least a brief reply in the interest of justice and the important questions presented by the petition.

THE QUESTIONS PRESENTED.

Respondent accuses petitioner of taking facts out of context, or worse yet, misstating record evidence, and then proceeds to do the same thing itself in its brief.[1] Petitioner respectfully contends that it is not the purpose of a Petition for a Writ to go into detail regarding the record evidence; particularly so in a case involving complicated questions of chemical patent law. We feel it is sufficient to state that no matter how one attempts to disguise it, the record evidence in this case reduces itself to two fundamentals which are as follows:

1. Prior to the TeGrotenhuis applications the use of allyl and vinyl silanes as a coupling agent for the materials involved[2] was unknown and untaught either by prior art patents or materials in the public domain.

2. Regardless of any possible alleged similarities in structure between allyl silicates and allyl and vinyl silanes *they do not function in the same way.*

Allyl silicates have never proven to be effective as a coupling agent for the materials involved particularly under conditions of moisture and it remained for the TeGrotenhuis patents to teach the use of allyl and vinyl silanes for this purpose. One must also mention that TeGrotenhuis was not merely a patent attorney practicing

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[1] As shown from quotations (11:2359-60) in attached appendix G, respondents represented to the patent office during the prosecution of the application of Steinman's '288 patent (which patent the appellate court held not to be prior to TeGrotenhuis) that neither Biefeld nor Hyde nor others had any relation to increasing resinous adhesion for fiberglass surfaces. Respondent's reliance on pertinence of these patents now is not understandable.

[2] See appendix H attached for correct statements of generic materials and subject matter involved in TeGrotenhuis' first 1945 application and patents in suit.

in Cleveland and also a chemical consultant, but rather is a registered professional engineer for both chemical and electrical engineering and an elected Fellow in the Institute of Chemists. He happens to hold numerous chemical and electrical patents other than the ones which are the subject matter of the instant litigation and holds a B.S. degree from Baldwin-Wallace College and an engineering degree from Case Institute of Technology (now Case-Western Reserve University) one of the nation's outstanding technological institutions.

Petitioner only hopes to be given the opportunity to demonstrate through a proper analysis of the record evidence not only the merits of his patent infringement case, but the fact that regrettably both the district court and the appellate court below simply did not understand the invention or they could not possibly have reached the conclusions that they did.[3]

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[3] If the lower courts had any conception of the inventions of the patents in suit, they could not have held that the dying of methallylsilicontrichloride-treated fibers with the well known dyes, Methyl violet, victoria green, rodamine green, and methylene blue, as described in example 2 of Johannson 304 patent (a patent office reference), had anything to do with the chemically reacting of vinyl- or allyl-silane treated fibers with a polymerizable olefinic monomer during the polymerization (transformation) into a solid resin (or rubbery polymer) to form a solid composite article useful as a boat hull, etc. A *court should certainly take judicial notice that if dyes bound fibers together into a solid mass all of the clothes they are wearing would be stiff as a board.* The similar holding that formation of a dye right on the surface of amino-silane-treated fibers as described in example 5 of that patent had anything to do with the chemical bonding of in situ formed resin and fibers is further evidence.

The fact that respondent's witness, Dr. Rochow, who later admitted on cross-examination (10:2081-82) that he was an inorganic chemist and was not expertise in organic chemistry, testified that these examples taught the invention of the patents in suit, also showed that he did not understand the invention involved here.

ARGUMENT.

Petitioner will not burden this Court with repeating what was already stated in the petition. Suffice it to state that all of these issues are raised by the analysis of the case in the courts below particularly the sixth circuit court of appeals decision appended to the petition. Again, no matter how respondent tries to disguise it, the fact that remains that the appellate court below decided the case solely on grounds of non-obviousness pursuant to a defense under Title 35 U.S.C. Sec. 103 buttressing this conclusion by three patents described in the petition as the Biefeld '805, Hyde '370 and Steinman '268 patents. The fact further remains that two of these patents insofar as their teachings were concerned, were before the patent office in stronger reference patents, thereby making the Biefeld and Hyde non-reference patents non-pertinent prior art.[4] Further, the so-called Steinman patent No. '268 concerned itself entirely with allyl silicates which, as already noted, do not function the same as allyl silanes,[5]

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[4] It is undisputed that the common paragraph, quoted page 10 footnote 4, of the petition includes up to a million possible compounds (12:2436-37) and that of these only the allylsilane there listed (without any statement of preference) could function in any manner as a coupling agent. No place else in these patents is an allylsilane or any alkenylsilane referred to. Every example, every other part of the specification refers to saturated compounds only, allylsilanes do not even come within any claim of these patents.

Thus these patents have, as respondent asserted to the patent office (see Appendix G attached) nothing at all to do with adhesion of fibers to resin.

[5] As shown from the quotation from Steinman's note book in part (b) of Appendix I attached, Steinman recognized only after TeGrotenhuis' effective filing date that the *"direct carbon-to-silicon bond"* in allylsilanes (but not present in the allylsilicates of Steinman's '268 patent *"will decrease the deleterious action of water on such laminates."* He thus admits the difference in function of allylsilanes and allylsilicates contrary to respondant's assertion to this Court.

and certainly cannot by any of the testimony be justifiably found to have anticipated the effective use of allyl silanes, let alone vinyl silanes, as a coupling agent.

It therefore is quite clear, as any law student reading the court of appeals decision would have to conclude, that the court below based its decision of an affirmance of the district judge on the premise that the district judge's findings that Biefeld, Hyde and Steinman were pertinent prior art teachings which vitiated the TeGrotenhuis patents pursuant to the statute 35 U.S.C. Sec. 103 was not plainly erroneous. This is the fundamental question raised by the Petition for a Writ of Certiorari which respondent's brief in no way answers. Nobody knows what a "heavy burden" may be in legal parlance as satisfactory proof. Be that as it may, there can be no question in this case but that the application of federal rule 52 (a) as a vehicle to review non-jury patent cases raises some very serious questions for this Court because the application of rule 52 (a) by the sixth circuit in this case, for all practical purposes, denied the petitioner any review at all.

One further point, and that is that even though the question of fairness of the trial below was briefed, the time element available for arguing the case was such that this question was never reached in the oral argument before the sixth circuit. To what extent, therefore, the court below paid attention to this assignment of error regrettably cannot be determined. In any event, petitioner urges upon this Court the fact that this issue alone is of serious

consequences in view of the estoppel doctrine now pronounced by this Court in patent infringement cases.

Respectfully submitted,

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APPENDIX G.

Excerpts from Steinman's testimony (11:2359-60) showing respondent's assertions to patent office re: Hyde and Biefeld Patents are directly contrary to its assertions now and findings of trial court.

Q. Dr. Steinman, I hand you what has been marked for purposes of identification and received into evidence as Defendant's Exhibit QQ. This exhibit was identified, I believe, as the patent history and file history in your patent No. 2,563,288, is that not correct? A. Correct.

Q. I believe that is your patent involving allylsilane? A. I believe so.

* * * * *

Q. All right, also, Doctor, are there not three Hyde patents cited there? A. Yes.

Q. And what are their numbers? A. 2,386,466, 2,390,-370, and 2,439,689.

Q. And I believe also there is a Biefeld patent cited also, is there not? A. That's correct. That patent No. is 2,392,805.

Q. Are there likewise two Kropa patents cited against you in the prosecution? A. Yes. Kropa 2,388,161 and Kropa 2,409,633.

Q. Now, directing your attention to page 50 of this file history, didn't you, through your attorney, state to the United States Patent Office concerning the Kropa, Biefeld, and Hyde patents as follows: [1250] "Biefeld was associated with the applicant in common chemical research under the general research group which was in very close cooperation with the research group directed by the applicant. Thus, *the applicant has been fully aware that neither of the inventions of the Biefeld or Kropa patents were directed to concepts for increasing resinous adhesion for*

fiberglas surfaces. The Biefeld organo silicon lubricant and an organo silicon resin as a binder or size for glass fiber filaments being collected into strands. Hyde teaches the accomplishments of the same results in substantially the same manner but with the possible use of a single component system. Neither Kropa nor Biefeld treated glass fibers with the material that corresponds to the composition described and claimed in this application." Was that not stated, Doctor? A. It is stated in the patent here, yes. (Emphasis added.)

APPENDIX H.

Correct statements of generic materials and subject matter involved in TeGrotenhuis' first 1945 application and patents in suit.

While the materials made by respondent that infringe the patents in suit are glass fibers having vinyl groups chemically bonded to their surfaces and such treated fibers bound solidly together by being chemically part of a resin solidified in contact therewith by polymerizing a polyester resin (which is a mixture of liquid styrene monomer and monomeric liquid polyester), neither the patents in suit, their claims, nor the basic TeGrotenhuis March 30, 1945 application were so limited. Polyester resin is merely a species of the various olefinically unsaturated materials such as styrenes, and methylmethacrylate monomers generally claimed and described in the early application as well as patents in suit. Glass fibers comprising ⅔ silica (11:2298-99) and are merely one species of the inorganic solids such as silica (whether in granular or fibrous form) and any of fibers within the term, "fibrous materials to be coated with films or layers of rubbery or resinous compositions" described in TeGrotenhuis's early

1945 application (2:191 et seq.). That application was held to disclose and claim 10 different inventions only one of which concerned composite articles of the patents in suit. Division was required (2:206-07) 10 ways and subject matter of one division matured into patents in suit. Respondent conveniently refers in its only answer brief to subject matter directed to paints and printing inks which issued in patents other than the patents in suit. On *May 15, 1945* TeGrotenhuis filed PX-6, application Ser. No. 593,970 (2:210-225) directed to the bonding together of vinylsilane-treated glass surfaces by in situ polymerized resin. This was also long before Steinman ever applied even an allylsilane to any surfaces (see appendix I attached hereto for excerpts from Steinman's own testimony showing the untruth of respondent's statements concerning Steinman's alleged early treatment of any fibers or other solids with an allysilane.

APPENDIX I.

Excerpts from Steinman's testimony and references thereto showing the true date of Steinman's conception and first use of allyl silanes was long after TeGrotenhuis' effective filing date of March 30, 1945.

Part (a).

EXCERPTS FROM CROSS-EXAMINATION 11:2338-9.

Q. Doctor, directing your attention to Exhibit CCC, my [1222] copy of which is almost illegible, but directing your attention to that exhibit, does it state thereon when you first successfully treated a compound sic [glass fibers] in accordance with the invention? A. Repeat the question. (The last question was read by the Reporter.) A. Yes.

Q. What date is given there? A. July 13, 1945.

Q. Doctor, handing you your laboratory notebooks, F-2, which is G-4, F-3, which is G-3, G-2 and G-5, are you able to find, in those notebooks, any experiments which you performed using an allyl silane from April of 1943 to July of 1945? A. (The witness examining a book) By the question, do you mean my actual application of this material to glass fabric as a coupling agent?

Q. Yes. A. I did not do that work myself.

Q. Did you perform any experiments with it from April of 1943 to July of 1945? A. I did not perform the experiments myself. We made materials, and other people in the laboratory applied these and carried out the—

Q. When [1223] A. I presume during this period, when we showed that we had made these materials.

Q. Doctor, I do not want to confuse you. I think the materials—the Grignard synthesis was just the manufacture of the allyl silane, am I not correct? A. That is correct.

Q. Now, from April of '43 to the date in July of '45, no further laboratory work was done by you on these compounds, isn't that true? A. I presume that is correct.

Q. And isn't it likewise true that no further work was done under your direction and control during that period of time? A. I presume so.

* * * * *

It is thus seen prior to July 1943 all Steinman or Respondent did in 1943 was make a hydrolizable allylsilane, a compound then well known in the art, having been prepared many times before.

Part (b).

Steinman later recognized the importance of the direct carbon-silicon bond in a silicon coupling agent, but too late for defendant's case. Belatedly he perceived in his note of June 13, 1945 (9:1588; 11:2300-01):

> "From work done with allyl, methallyl and beta-chlorallyl silicates as adhesion promoters for reinforced plastic laminates of glass, it is the firm belief of the writer that *unsaturated compounds with a direct carbon-to-silicon bond* will bring about adhesion of thermosetting polymerizing resins to glass. Further, *the presence of these materials on the glass surface will decrease the deleterious action of water* on the properties of such laminates." (Emphasis added.)

It was shortly after this revelation that Steinman directed his assistant Bennett *to make certain hydrolyzable allylsilanes in the laboratory* on July 6, 1945, and he used them for the first time, as coupling agents in reinforced plactics on July 13, 1945 (11:2304, 2338; 8:1589-91). He did not wait for them to be made commercially or produced by Dow Corning Corporation as respondent asserts in its brief. This quotation also shows Steinman admitted entire difference in function of allysilicates (which have no direct carbon-to-silicon bond) and allylsilanes in *preventing the deleterious action of water,* contrary to the lower court's finding, and shows the non-pertinence of Steinman's '268 patent.